

APPLN. FILING DATE: FILED HEREWITH

TITLE: METHOD AND APPARATUS FOR STRAIN-STRESS SENSORS AND SMART SKIN  
FOR AIRCRAFT AND SPACE VEHICLES

INVENTOR(S): BENJAMIN F. DORFMAN

APPLICATION SERIAL NO: 033957-004

SHEET 1 of 10

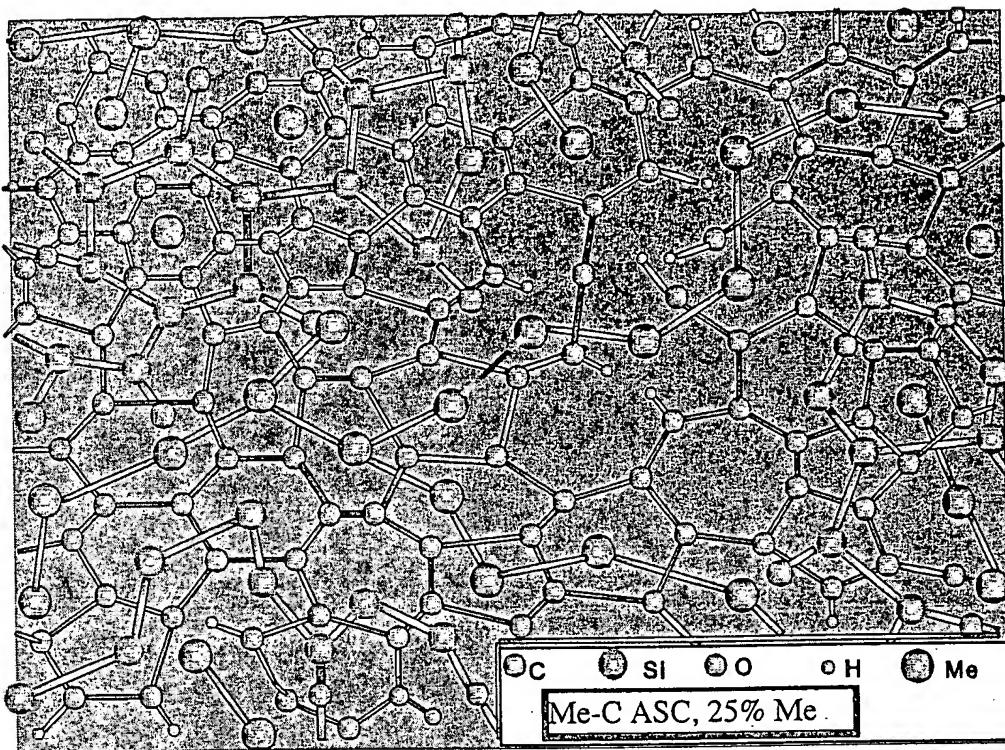


Figure 1, A (PRIOR ART)

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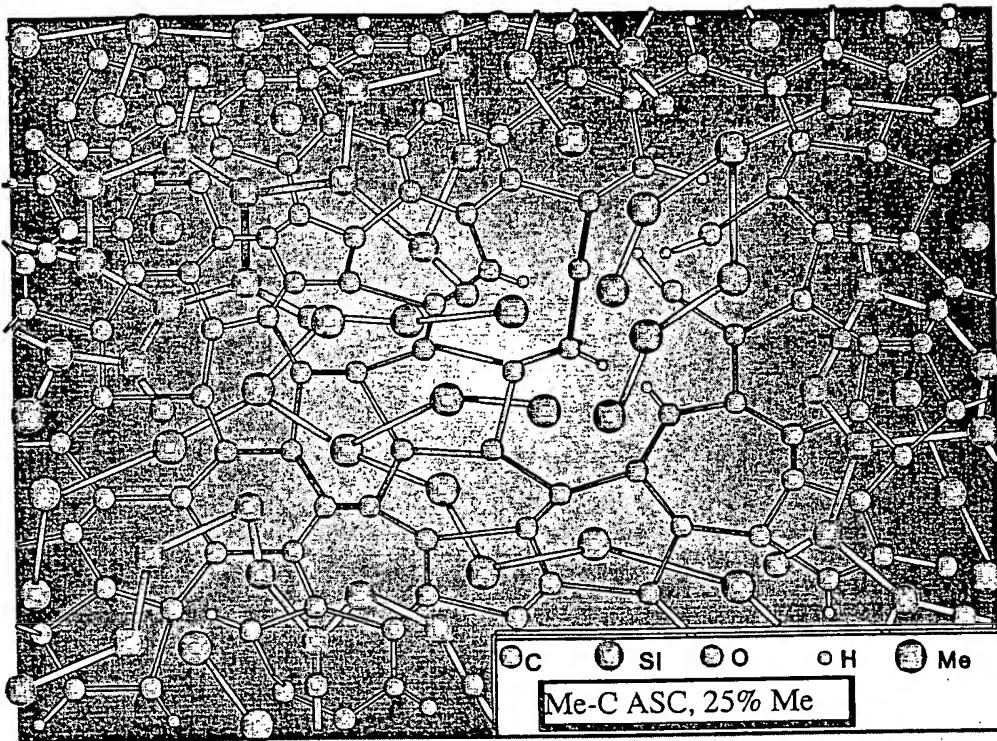


Figure 1, B.

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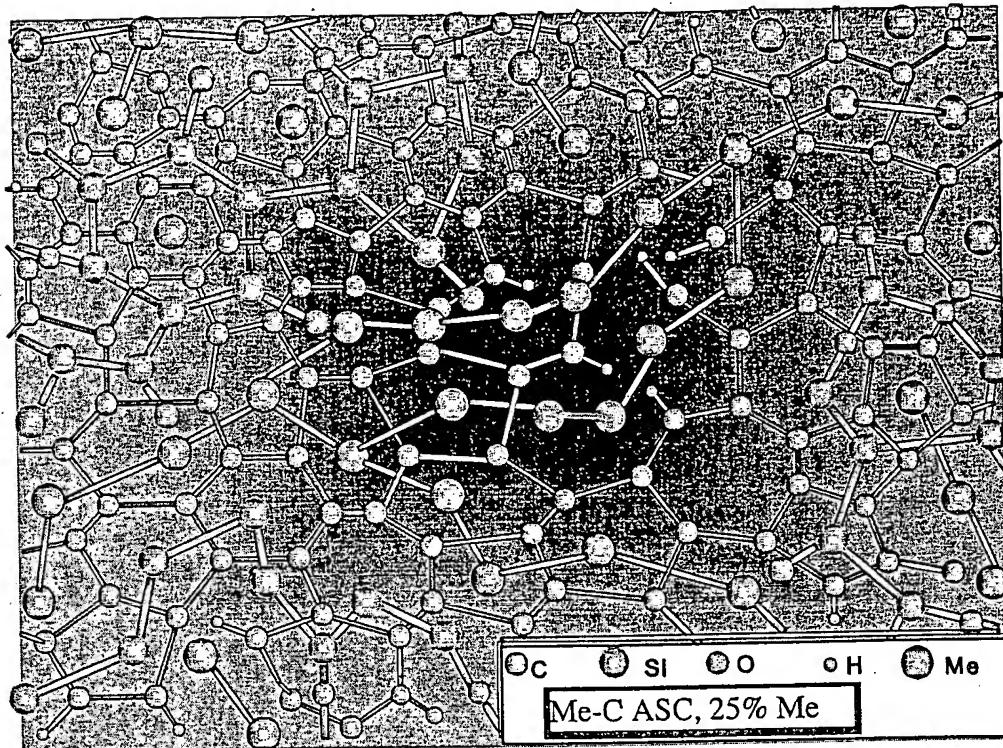


Figure 1, C.

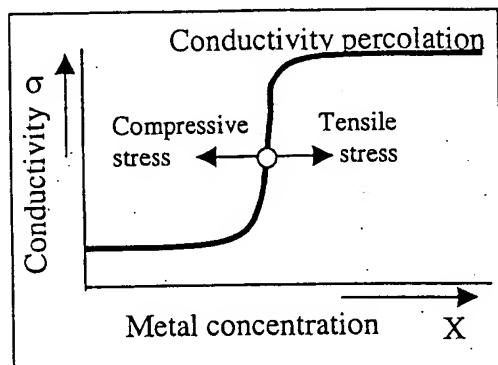


Fig 2A

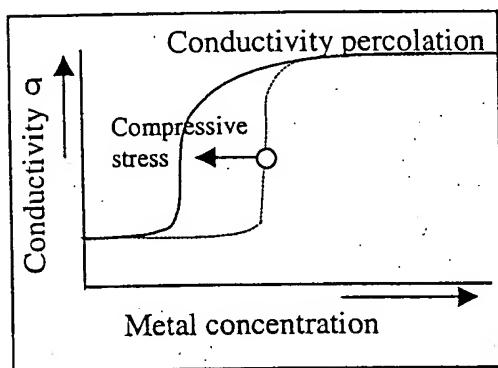


Fig 2B

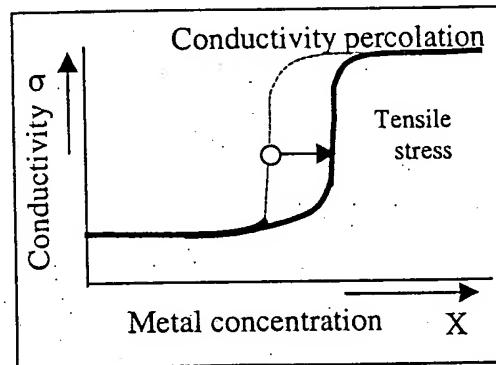


Fig 2C

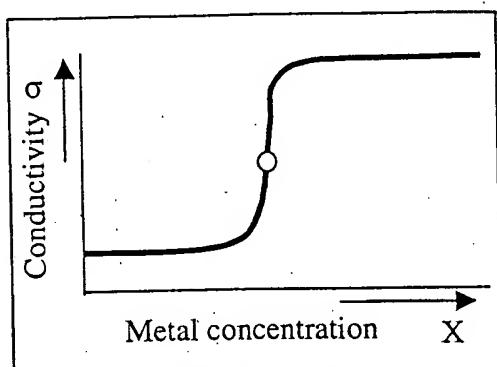


Fig 3A

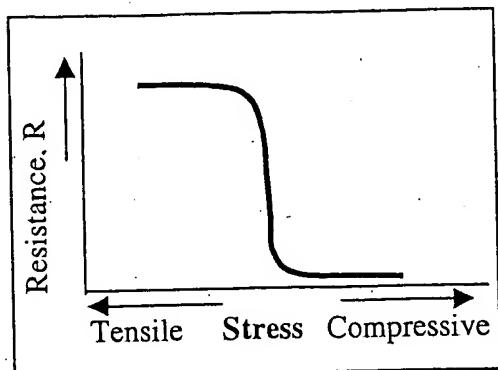


Fig 3B

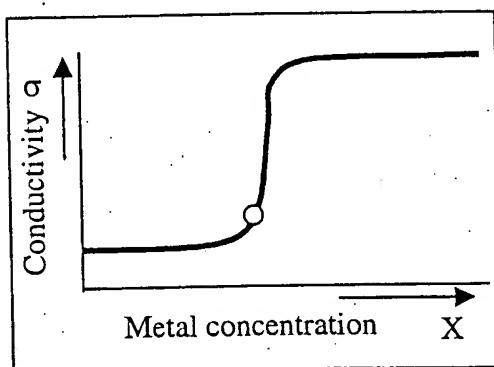


Fig 3C

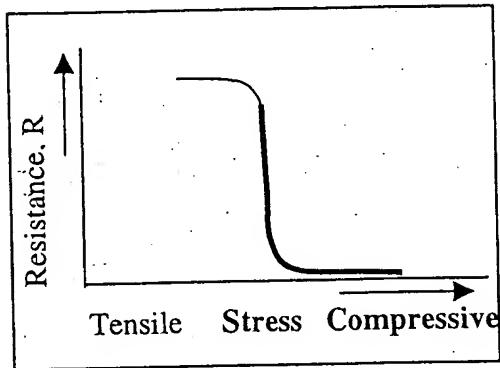


Fig 3D

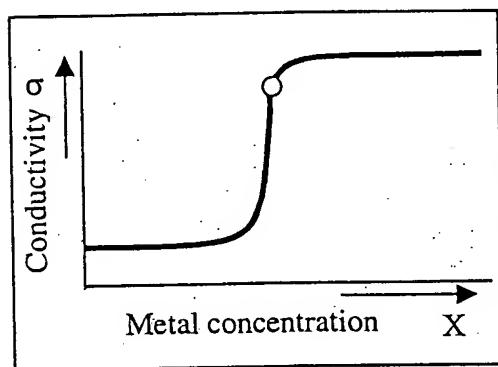


Fig 3E

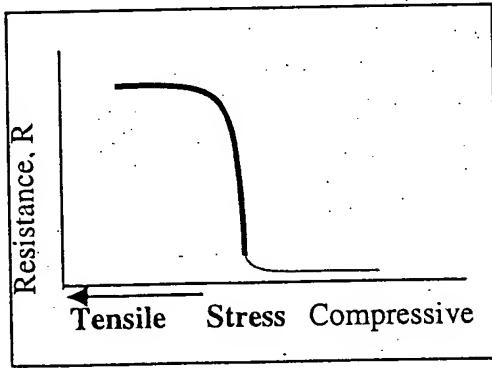
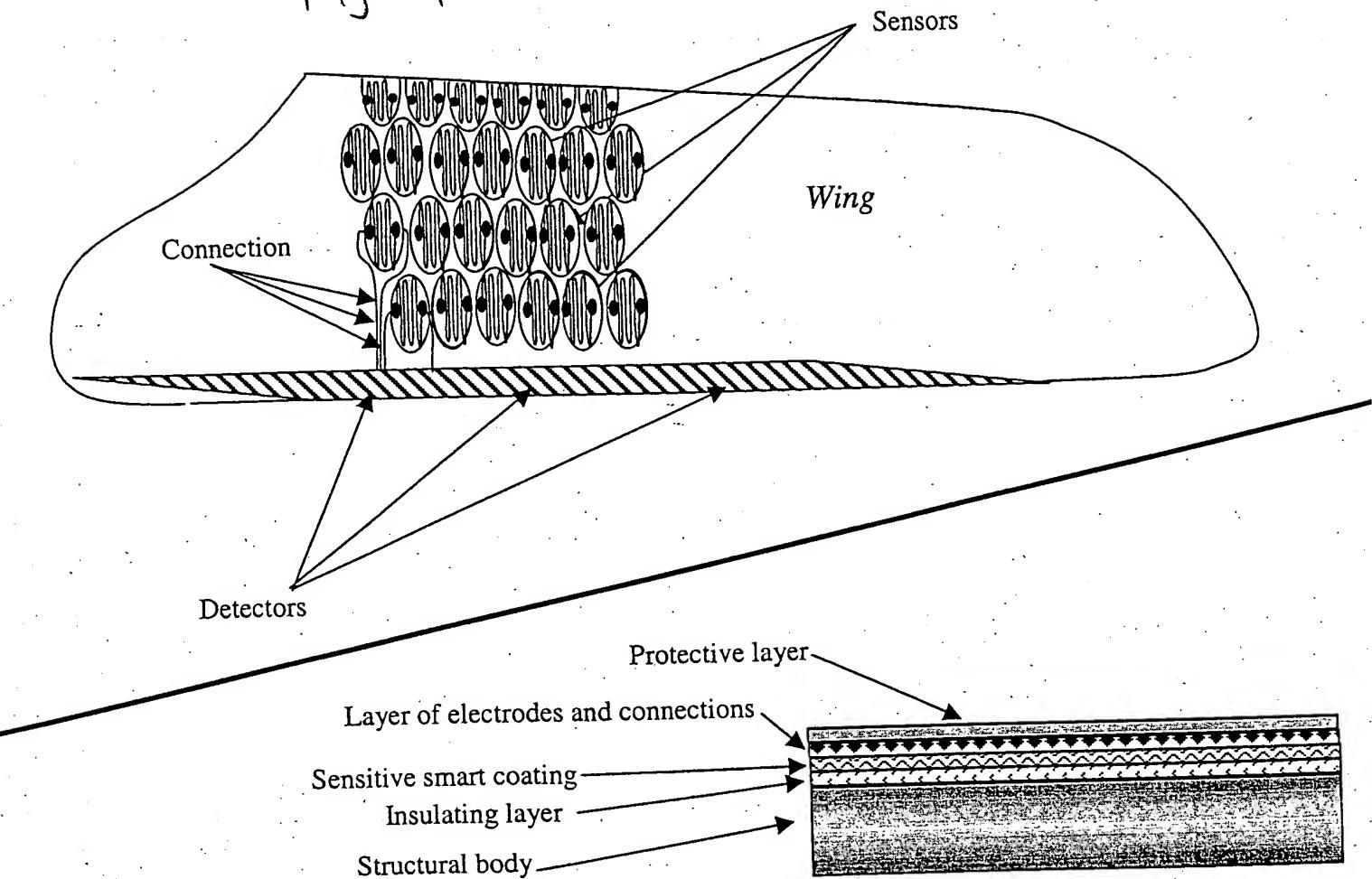


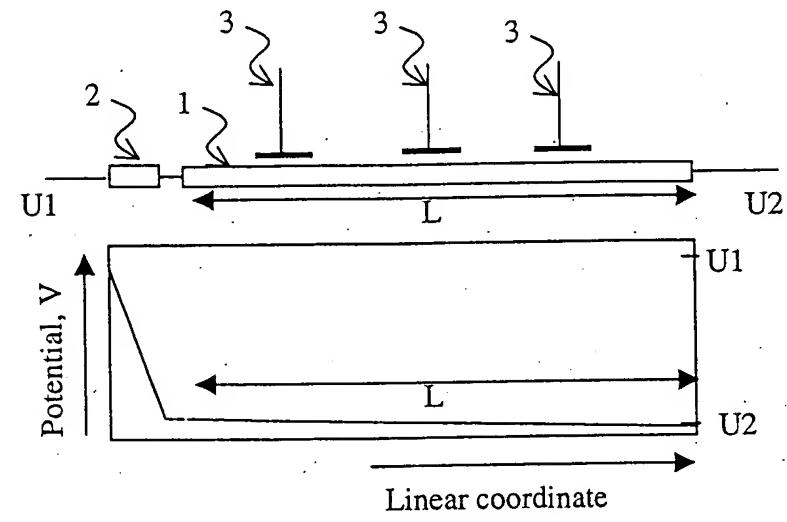
Fig 3F

Fig 4

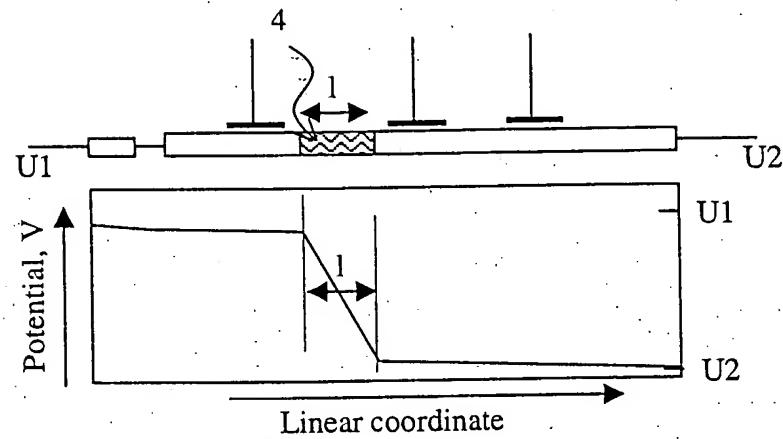


Cross-section

Fig 5



a



b

To Legend to figure 6:

1 – percolation transition sensor; 2 – external resistor; 3 – capacitors; 4 – stressed area (tensile stress) with increased resistivity.

Fig 7 A

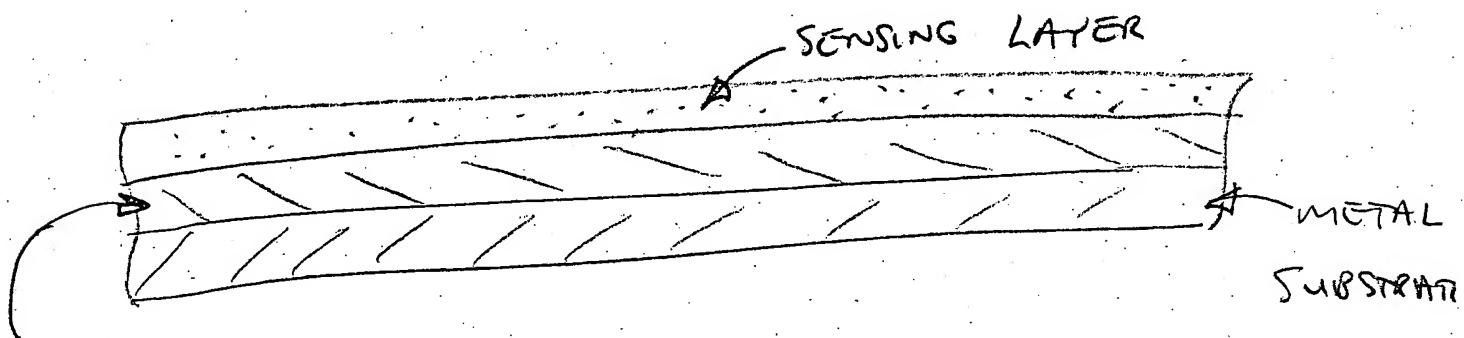
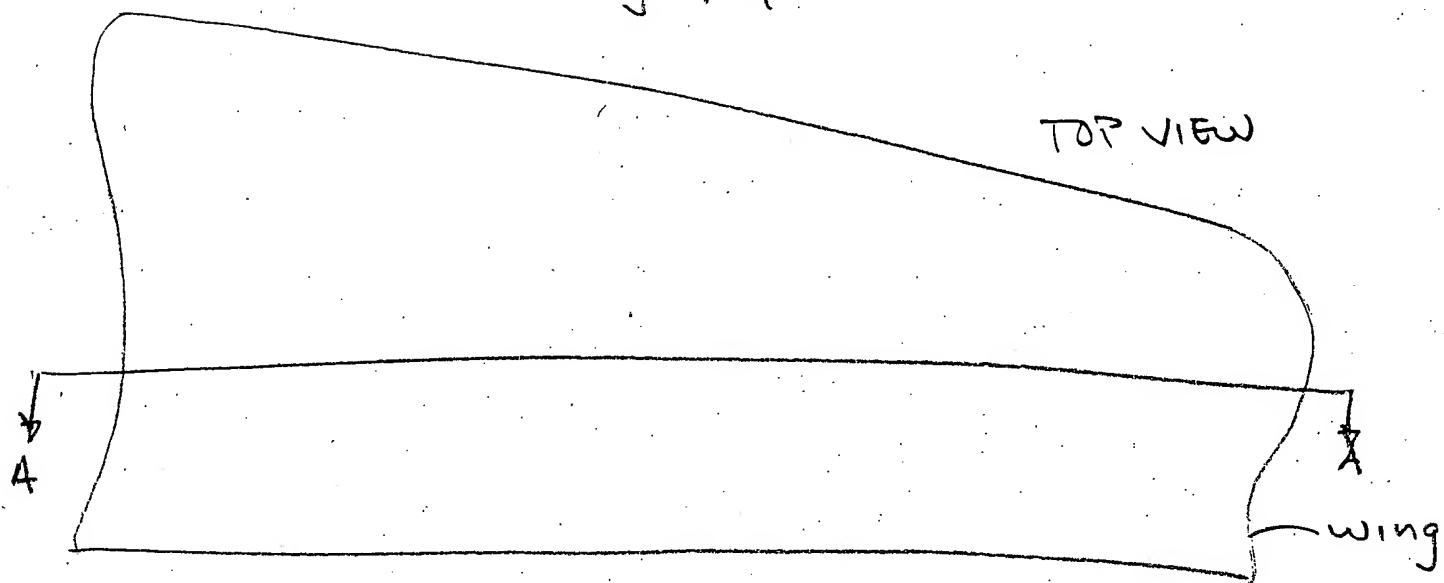
INSULATING  
COATING

Fig 7 B

CROSS SECTION

THRU A-A

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Fig 8A

TOP VIEW

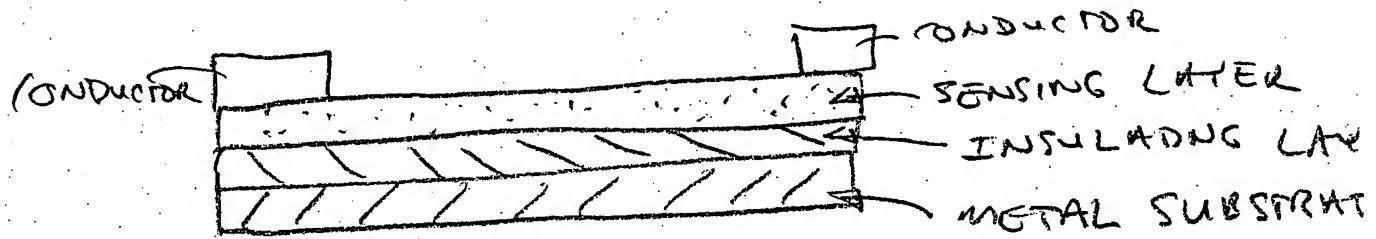
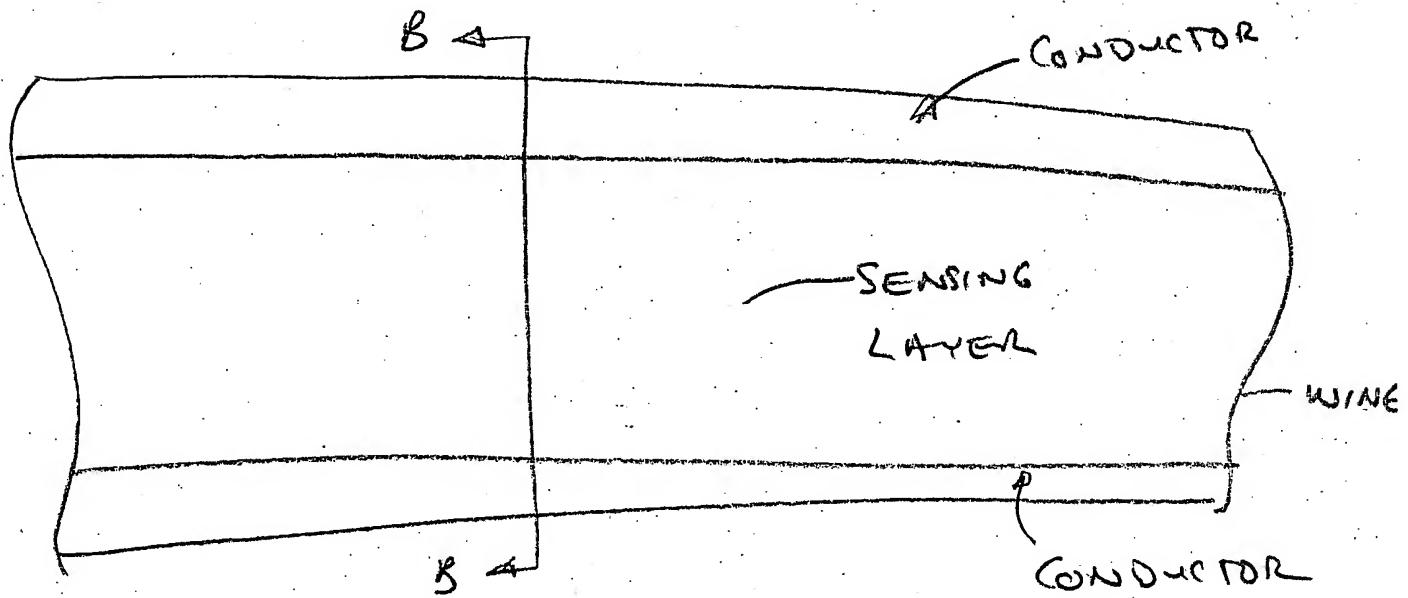


Fig 8B Cross SECTION

THRU B-B

Fig 9 A

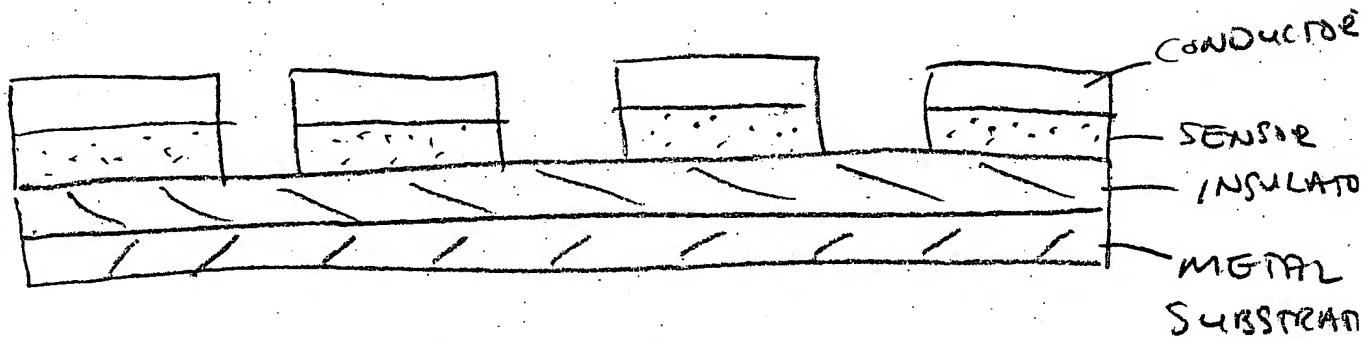
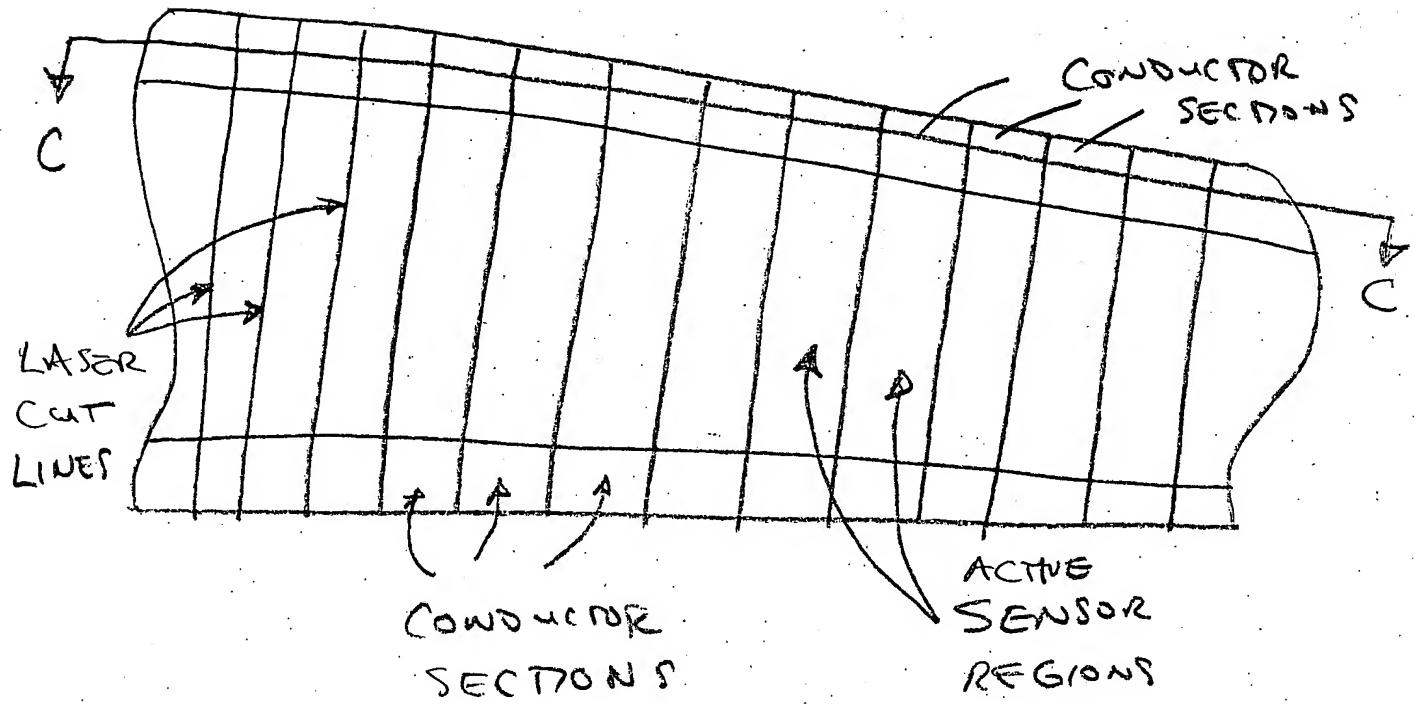


Fig 9 B